

ENROLL US!

We Want to Be a Member in EPA's Voluntary National Waste Minimization Partnership Program



GENERAL INFORMATION

Company Name: E.I. du Pont de Nemours and Company

Facility Name: Titanium Technologies

Principal Contact: Linda K. Bernard / L. Fasullo

Facility Location: City: See Description Below

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PARTNER AGREEMENT

Our organization/company is choosing to become a partner in EPA's National Waste Minimization Partnership Program. Our goal is to reduce the quantity of one or more Waste Minimization Priority Chemicals currently found in our hazardous and/or nonhazardous wastes using source reduction and/or recycling practices, in lieu of waste treatment or land disposal practices. In this enrollment application, we identify one or more voluntary waste minimization goals that we believe we can achieve as Partners in this Program. The voluntary goals provided below are initial estimates, and may change over time. We may revise our goals or withdraw from the program at any time. If/when choose to revise our goals or withdraw from the program, we will notify EPA.

GOAL #1: Chemical Name: Dioxins / Furans

CASRN: N / A

Narrative description of proposed project (and the mechanism you will use to measure success): DuPont Titanium Technologies (DTT) is researching how and where in the chloride-ilmenite titanium dioxide production process persistent, bioaccumulative and toxic chemicals (PBTs) are generated as impurities. Dioxin and Dioxin-Like Compound (D&DLCs are the same as Dioxins/Furans listed on the form.) The purpose of the program is to reduce inadvertently generated PBTs at all DTT sites at the source of generation. This enrollment is for the combined program at our three US sites: DeLisle MS, Edge Moor DE, and Johnsonville, TN.

The first step in the program requires clear understanding of the organic reaction chemistry in the process. Baseline samples are collected at all sites, and process conditions are recorded. There are differences in the sites' operating conditions, some subtle and some more obvious. Full scale tests will be implemented to assess the feasibility at each site to assure the modifications can be implemented and to identify permanent equipment needs. The program will also include modeling and consultation with experts within and outside of DuPont.

To date the program has identified proprietary process modifications that will result in reductions in waste streams that are not classified as hazardous waste but contain D&DLC. Some of these modifications are being implemented. Technology sharing among the sites is being used to keep the program costs to a minimum. The program is assessing a number of options, some of which may increase certain PBTs while reducing others. Newly identified options are under review and consideration.

Although D&DLC are reported as total grams released under the Toxic Release Inventory (TRI), DuPont believes that it is more appropriate to consider the toxic-equivalency (TEQ) basis for reductions under this program. TEQs relate to the toxicity of the individual constituents in the D&DLC category to the most toxic constituent, which is 2,3,7,8-tetrachlorodibenzo-p-dioxin. While TRI requires the reporting of the percent of each constituent in the category, the general public does not relate this information to toxicity of the total amount reported. DTT may provide a Case Study that includes reductions on a TEQ basis. In addition, TRI tracks total releases and transfers with no indication of actual exposure to the public. For our case it should be noted that almost all of the releases reported under TRI are contained in on-site or off-site landfill disposal facilities and do not result in any significant exposure to the community.

1. Our voluntary source reduction goal for Chemical #1 is to reduce the amount of this chemical generated in hazardous waste from a baseline amount of: 228.96 in January 2001, to a reduced amount of 114.48 by December 2005
(x pounds generated/year) (month/year) (x pounds generated/ year) (month/year)
2. To accomplish this goal, we will explore the following source reduction options: (Check all that apply)
☒ Equipment or technology modifications ☒ Process or procedure modifications
☐ Reformulation or redesign of products ☐ Substitution of less toxic raw materials
☐ Improvements in inventory control ☐ Improvements in maintenance/housekeeping practices
☒ Other (explain): Substitution of Alternate Raw Materials
3. Our (optional) voluntary recycling goal for Chemical #1 is to increase the amount of waste Chemical #1 recycled from a baseline amount of _____ in _____, to an increased recycled quantity of _____ by _____.
(x lbs/year) (month/year) (x lbs/year) (month/year)
4. To accomplish this recycling goal, we will explore: (check all that apply)
☐ Direct use/reuse in a process to make a product ☐ Process the waste to recover or regenerate a usable product
☐ Use/reuse as a substitute for a commercial product ☐ Other (explain): _

Authorizing Official: F. Eddie Johnston, III, Safety, Health and Environmental Affairs Manager, DuPont Titanium Technologies

Date: June 17th, 2003

Project Contact (if different from Company Official): _____ **Phone:** _____

NOTE TO PROSPECTIVE PARTNERS: Use supplemental sheets to set goals for additional short term and/or long term goals.

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